CLAIMS:

1.   A microcontroller (100) the programming of which is carried out in at least
one machine-dependent assembly language in which the assembler commands, with the
exception of conditional program branches, are executable essentially independently of data,

-        in case of a fulfilled branch condition, for example, at least one fulfilled status
5   flag, at least one program counter (10) being loadable with a new address and/or a new value,
and

-        in case of an unfulfilled branch condition, for example, at least one unfulfilled
status flag, the instruction being ended,
characterized in that in case of an unfulfilled branch condition the program counter (10),
10   instead of ending the instruction, is optionally re-loadable with its previous address and/or
with its previous value.

2.   A microcontroller as claimed in claim 1, characterized by at least one
multiplex unit (20) triggerable by means of the result of the testing of the branch condition,
15   the input of the program counter (10)

-        in case of a fulfilled branch condition being loadable with the new address
and/or the new value, and

-        in case of an unfulfilled branch condition being loadable with the address at
the output of the program counter (10) and/or with the value at the output of the program
20   counter (10).

3.   A microcontroller as claimed in claim 1 or 2, characterized by its
configuration as a smartcard controller.

25   4.   An electrical or electronic device controlled by means of at least one
microcontroller (100) according to at least one of claims 1 to 3.

5.   A method for processing the programming of a microcontroller (100) carried
out in at least one machine-dependent assembly language,

- the assembler commands, with the exception of conditional program branches, being executed essentially independently of data,

- in case of a fulfilled branch condition, for example, at least one fulfilled status flag, at least one program counter (10) being loaded with a new address and/or with a new

5   value, and

- in case of an unfulfilled branch condition, for example, at least one unfulfilled status flag, the instruction being ended,

characterized in that in case of an unfulfilled branch condition the program counter (10), instead of ending the instruction, is optionally re-loaded with its previous address and/or with

10   its previous value.

6.   A method as claimed in claim 5, characterized in that

- in case of a fulfilled branch condition the new address and/or the new value, and

15   - in case of an unfulfilled branch condition the address at the output of the program counter (10) and/or the value at the output of the program counter (10) is/are supplied to the input of the program counter (10).

7.   A method as claimed in claim 5 or 6, characterized in that the testing of the

20   branch condition and/or the loading of the program counter (10) is/are carried out with complementary data.

8.   A method as claimed in at least one of claims 5 to 7, characterized in that in case of an unfulfilled branch condition the option between ending the instruction and re-

25   loading the program counter (10) with its previous address and/or with its previous value is controlled by at least one special bit (so-called "select bit").

9.   A method as claimed in at least one of claims 5 to 8, characterized in that, in case of an unfulfilled branch condition, in program parts which are non-critical and/or not

30   security-sensitive the option of ending the instruction is selected in particular by the special bit.

10.   A method as claimed in claim 8 or 9, characterized in that the special bit option can be switched on and off in any desired sequence, for example, by means of at least one random function and/or by means of at least one suitable bit sequence.